IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of	Confirmation No.: 7504
Luis Carlos SERNAN-DEZ ARPPE et al.	Date: August 20, 2009
Serial No.: 10/526,599	Group Art Unit: 2617
Filed: May 4, 2005	Examiner: Kwasi KARIKARI

For: DIALING ERROR WARNING SYSTEM AND METHOD

Via EFS Web
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF UNDER 37 C.F.R. §41.37

Sir:

This appeal is taken from the final action mailed January 22, 2009. In support of the Notice of Appeal filed June 22, 2009, the present Appeal Brief is presented.

I. Real Party in Interest

The real party in interest is the assignee, VODAFONE GROUP PLC.

II. Related Appeals and Interferences

The applicants, the assignee and the undersigned attorney are not aware of any related appeals and interferences.

III. Status of Claims

Claims 1-24 stand rejected and are pending and on appeal herein.

IV. Status of Amendments

In response to the Appeal Brief filed October 21, 2009, the final Office Action was mailed on January 22, 2009. A Notice of Appeal was filed June 22, 2009. No amendments to

the claims have made since issuance of the previous final Office Action dated September 21, 2007.

V. Summary of Claimed Subject Matter

Independent claim 1 relates to a dialing error notification system for visiting subscribers in a visited mobile telephony network (*See visited mobile telephony network VPLMN 100 at page 12, lines 27-29 and Fig. 4, for example)*, a visiting subscriber (*See page 13, lines 12-15, for example)* being a subscriber from a home mobile telephony network (*See home mobile telephone network HPLMN 200 described at page 12, lines 30-33 and shown in Fig. 4, for example)* different from the visited mobile telephony network (*See visited mobile telephony network VPLMN 100 at page 12, lines 27-29 and Fig. 4, for example).* The dialing error notification system includes a first node of the visited mobile telephony network comprising apparatus for analysing a number dialed by the visiting subscriber *(See the MSC/VLR elements 5 and 7 of Fig. 4 and page 13, lines 12-15, for example*) and determining whether said dialed number complies with at least one predetermined error criterion (*See SCP 11 of Figs. 4-5 described at page 13, line 20 to page 14, line 4, for example)*; a first apparatus for determining the identity of the home mobile telephony network based on the International Mobile Subscriber Identity of the visiting subscriber (*See page 13, lines 14-16 and step S9 of Fig. 7 and page 22, lines 8-12)*; and a second apparatus for sending a short message with a dialing error notification to the visiting subscriber if said dialed number complies with at least one predetermined error criterion (*See SS7-IP SDP gateway 16, server 18 and SMSC 10 of Figs. 4-6 and page 14, line 25 to page 15, line 8),* wherein the short message is sent based on the determined identity of the home mobile telephony network (*See page 19, line 34 to page 20 line 4 and step S11 of Fig. 7 and page 22, lines 19-23, for example).*

Independent claim 11 relates to a dialing error notification method for visiting subscribers *(See page 13, lines 12-15, for example)* in a visited mobile telephony network (*See visited mobile telephony network VPLMN 100 at page 12, lines 27-29 and Fig. 4, for example*) a visiting subscriber being a subscriber from a home mobile telephony network different (*See home mobile telephone network HPLMN 200 described at page 12, lines 30-33 and shown in Fig. 4, for example)* from the visited mobile telephony network. The method includes (a) analysing in a

first node of the visited mobile telephony network a number dialed by the visiting subscriber *(See the MSC/VLR elements 5 and 7 of Fig. 4 and page 13, lines 12-15, for example)* and determining whether said number dialed complies with at least one predetermined error criterion *(See SCP 11 of Figs. 4-5 described at page 13 line 20 to page 14, line 4, for example)*; (b) determining the identity of the home mobile telephony network based on the International Mobile Subscriber Identity of the visiting subscriber *(See page 13, lines 14-16 and step S9 of Fig. 7 and page 22, lines 8-12)*; (c) sending at least one short message to the visiting subscriber if said dialed number complies with at least one predetermined error criterion *((See SS7-IP SDP gateway 16, server 18 and SMSC 10 of Figs. 4-6 and page 14, line 25 to page 15, line 8, for example)*, said short message comprising at least one dialing error notification, wherein the short message is sent based on the determined identity of the home mobile telephony network *(See page 19, line 34 to page 20 line 4 and step S11 of Fig. 7 and page 22, lines 19-23, for example)*.

VI. Grounds of Rejection to be Reviewed

The following grounds of the rejection are presented for review:

1. Whether claims 1-23 were correctly rejected under 35 U.S.C. §103(a) as being unpatentable over Gibson et al., U.S. Patent No. 6,775,249 in view of Allison et al., U.S. Patent Publication No. 2003/0083078.

3. Whether claim 24 was correctly rejected under 35 U.S.C. §103(a) as being unpatentable over Gibson et al., U.S. Patent No. 6,775,249 in view of Allison et al., U.S. Patent publication No. 2003/0083078, in view of Lohtia et al., U.S. Patent Publication No. 2003/0211845.

VII. Argument

Rejection of Claims 1-23 under 35 U.S.C. § 103

In response to Applicants' previously filed Appeal Brief dated October 21, 2008, a final Office Action was mailed on January 22, 2009.

Claims 1-23 stand rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Gibson et al., U.S. Patent No. 6,775,249 (hereinafter "Gibson"), in view of Allison et al., U.S. Patent Publication No. 2003/0083078 (hereinafter "Allison").

As has been explained previously, claims 1 and 11 require a dialing error notification system (or method per claim 11) for visiting subscribers in a visited mobile telephony network, in which the identity of the home mobile telephony network is determined based on the IMSI (International Mobile Subscriber Identity) of the visiting subscriber, and a short message with a dialing error notification is sent to the visiting subscriber, wherein the short message is sent based on the determined identity of the home mobile telephony network. That is, a visiting user is notified of a dialing error in accordance with their home network, for example, in the appropriate language.

The Examiner has conceded that Gibson fails to disclose a visiting subscriber in a visited network, or that a fax message sent to user 100 is a short message or that the identity of the user 100 is based on the International Mobile Subscriber Identity of the visiting subscriber. In the final Office Action, the Examiner apparently relies on Allison as allegedly disclosing these features. This is incorrect.

As an initial matter, while the Examiner has argued that Allison is "analogous art," Allison relates to an SMS spam filter and is not at all analogous to the fixed telephone system of Gibson. Further, Allison also fails to disclose "a first apparatus for determining the identity of the home mobile telephony network based on the International Mobile Subscriber Identity of the visiting subscriber; and a second apparatus for sending a short message with a dialing error notification to the visiting subscriber if said dialed number complies with at least one predetermined error criterion, wherein the short message is sent based on the determined identity of the home mobile telephony network," is required by claim 1 of the present application. In the SMS spam filter of Allison, unwanted SMS messages are simply not sent to the addressee at all and no message is ever returned to the sender of the SMS. It follows that there is no disclosure that such a message is sent "based on the determined identity of the home telephony network." Further, there would be no need to include any of these features in the filtering system of Allison.

One of the advantages provided by claim 1 of the present application is that a roaming user, or visiting subscriber, who mis-dials a number to place a telephone call is notified of their

error prior to connecting the mis-dialed call. This notification is based on the home network of the user, such that it is, for example, provided in the appropriate language for the user. Gibson relates to a fixed telephone system, and thus, there is no need to determine the home telephony network since it is fixed. In addition, there is not need to do so in Allison as well, since as noted above, the filtering system never even contemplates sending a message back to the sender.

Indeed, while Allison makes mention of an "international mobile station identification (IMSI)" of a mobile subscriber, there is simply no disclosure in Allison of an apparatus that actually determines the identity of the home telephony network, much less that a short message is sent based on the determined identity of the home telephony network.

Even if Allison did disclose the features of claim1 suggested by the Examiner, it would not have been obvious to modify Gibson to include these features. As is noted above, Gibson is related to a fixed telephone system, and thus, is unconcerned with the concept of visiting users and/or the sending of short messages. The Examiner has failed to identify any apparent reasons why one of skill in the art of a fixed telephone system would even look to an SMS filtering system to make the suggested combination proposed by the Examiner. Thus, absent the use of impermissible hindsight, the combination of Gibson and Allison suggested by the Examiner would not have been obvious.

Claims 2-10 depend from claim 1 and claims 12-23 depend from claim 11, and therefore, claims 2-10 and 12-23 are also patentably distinguishable over the cited art for at least the reasons described above.

Rejection of Claim 24 under 35 U.S.C. § 103

Claim 24 is rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Gibson, Allison and further in view of Lohtia et al., U.S. Patent Application Publication No. 2003/0211845.

Claim 24 depends on claim 11. As is noted above, claim 11 is believed to be patentable over Gibson and Allison. Claim 11 is also patentable over Gibson, Allison and Lohtia, since none of these references show or suggest the patentable features of claim 11 described above.

For at least the foregoing reasons, allowance of claims 1-24 is requested.

VIII. Conclusion

In light of the remarks herein, it is respectfully submitted that claims 1-24 are patentable over the cited art and are in condition for allowance.

The amount of $540.00 was previously submitted with Applicants Appeal Brief dated October 21, 2008 to cover the 37 C.F.R. §41.20(b)(2) fee for filing an Appeal Brief. Since the Examiner reopened prosecution following the filing of that Appeal Brief, it is not believed that any further fee is due at this time. However, any additional fees or charges required at this time in connection with this application may be charged to Patent and Trademark Office Deposit Account No. 15-0700.

If this communication is filed after a shortened statutory time period has elapsed and no separate Petition is enclosed, the Commissioner of Patents and Trademarks is petitioned, under 37 C.F.R. §1.136(a), to extend the time for filing a response to the outstanding Office Action by the number of months which will avoid abandonment under 37 C.F.R. §1.135. The fee under 37 C.F.R. §1.17 should be charged to our Deposit Account No. 15-0700.

In the event the actual fee is greater than the payment submitted or is inadvertently not enclosed or if any additional fee during the prosecution of this application is not paid, the Patent Office is authorized to charge the underpayment to Deposit Account No. 15-0700.

Respectfully submitted,

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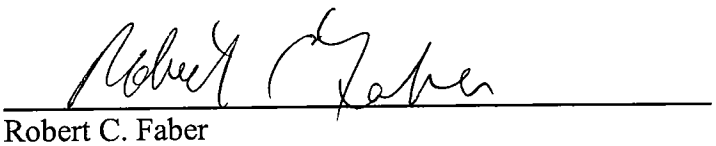

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APPENDIX

The claims on appeal are:

1. (Previously Presented) A dialing error notification system for visiting subscribers in a visited mobile telephony network, a visiting subscriber being a subscriber from a home mobile telephony network different from the visited mobile telephony network, the dialing error notification system comprising:

a first node of the visited mobile telephony network comprising apparatus for analysing a number dialed by the visiting subscriber and determining whether said dialed number complies with at least one predetermined error criterion;

a first apparatus for determining the identity of the home mobile telephony network based on the International Mobile Subscriber Identity of the visiting subscriber; and

a second apparatus for sending a short message with a dialing error notification to the visiting subscriber if said dialed number complies with at least one predetermined error criterion,

wherein the short message is sent based on the determined identity of the home mobile telephony network.

2. (Previously Presented) The system according to claim 1, wherein said first node is a Service Control Point of the visited mobile telephony network.

3. (Previously Presented) The system according to claim 1, comprising:

a third apparatus for sending a message to an SS7-IP gateway from the first node of the visited mobile telephony network, said message being a message with instructions to send the short message;

a fourth apparatus for sending an http message to a short message sending server from said SS7-IP gateway, said http message being a message with instructions to send the short message;

the second apparatus for sending the short message addressed to the visiting subscriber to a Short Message Service Centre of the visited network from said short message sending server, upon receipt of said instructions by said short message sending server.

4. (Previously Presented) The system according to claim 1, further comprising apparatus for selecting text for the short message based on the identity of the home mobile telephony network as

determined by International Mobile Subscriber Identity of the visiting subscriber.

5. (Previously Presented) The system according to claim 3, wherein the short message sending server includes a database with short message texts and apparatus for selecting a short message text based on an indicator code included in the http message received from the SS7-IP gateway.

6. (Previously Presented) The system according to claim 3, wherein the http message includes at least one indicator code of a short message text and the mobile telephone number of the visiting subscriber to whom the short message is to be sent.

7. (Previously Presented) The system according to claim 1, further comprising a fifth apparatus for sending an initial control set-up message to the first node, the initial control set-up message comprising at least the following data: the telephone number dialed by the visiting subscriber, the mobile telephone number of the visiting subscriber, and the International Mobile Subscriber Identity of the visiting subscriber.

8. (Previously Presented) The system according to claim 7, wherein the fifth apparatus for sending an initial control set-up message to the first node is comprised in a Mobile Switching Centre of the visited mobile telephony network, such that when a visiting subscriber in a cell corresponding to the Mobile Switching Centre dials a telephone number, said Mobile Switching Centre sends the initial control set-up message to the first node.

9. (Previously Presented) The system according to claim 1, further comprising a control apparatus for preventing a second short message with a dialing error notification from being sent to a visiting subscriber if the time elapsed since a first short message with a dialing error notification was sent to said visiting subscriber is less than a predetermined minimum time.

10. (Previously Presented) The system according to claim 1, wherein the error criteria include at least one criterion selected from a group consisting of the following criteria:

a number dialed begins with "+" followed by a sign different from a digit C, $1 \leq C \leq 9$;

a number dialed begins with "00" followed by a sign different from a digit C, $1 \leq C \leq 9$;

a number dialed is a 9-digit number beginning with a digit which is not 6, 7, 8 or 9;

a number dialed begins with "+" or "00" followed by a country code followed by an escape code not applicable for international dialing to said country; and

a number dialed is a number with fewer than 9 digits which is not a short code.

11. (Previously Presented) A dialing error notification method for visiting subscribers in a visited mobile telephony network, a visiting subscriber being a subscriber from a home mobile telephony network different from the visited mobile telephony network, the method comprising the steps of:

(a) analysing in a first node of the visited mobile telephony network a number dialed by the visiting subscriber and determining whether said number dialed complies with at least one predetermined error criterion;

(b) determining the identity of the home mobile telephony network based on the International Mobile Subscriber Identity of the visiting subscriber;

(c) sending at least one short message to the visiting subscriber if said dialed number complies with at least one predetermined error criterion, said short message comprising at least one dialing error notification,

wherein the short message is sent based on the determined identity of the home mobile telephony network.

12. (Previously Presented) The method according to claim 11, wherein the first node is a Service Control Point of the visited mobile telephony network.

13. (Previously Presented) The method according to claim 11, further comprising:

(d) based on the identity of the home mobile telephony network of the visiting subscriber as determined by the International Mobile Subscriber Identity of the visiting subscriber, determining whether the visiting subscriber has a right to a dialing error notification service.

14. (Previously Presented) The method according to claim 13, wherein steps (b) and (d) are carried out before step (c).

15. (Previously Presented) The method according to claim 14, wherein steps (b) and (d) are carried out before step (a).

16. (Previously Presented) The method according to claim 11, wherein step (c) comprises:

sending a message to an SS7-IP gateway from a Service Control Point, said message being a message with instructions to send the short message;

sending an http message to a short message sending server from said SS7-IP gateway, said http message being a message with instructions to send the short message; and

sending the short message addressed to the visiting subscriber to a Short Message Service Centre of the visited network from said server, upon receipt of said instructions by said short message sending server.

17. (Previously Presented) The method according to claim 11, wherein text for the short message is selected based on the identity of the home mobile telephony network as determined by the International Mobile Subscriber Identity of the visiting subscriber.

18. (Previously Presented) The method according to claim 16, wherein text for the short message is selected based on the identity of the home mobile telephony network as determined by the International Mobile Subscriber Identity of the visiting subscriber, and the text is selected from a plurality of texts stored in a database of the short message sending server based on an indicator code included in the http message received from the SS7-IP gateway.

19. (Previously Presented) The method according to claim 16, wherein the http message includes at least one indicator code indicating a short message text and the mobile telephone number of the visiting subscriber to whom the short message is to be sent.

20. (Previously Presented) The method according to claim 11, further comprising a first step comprising sending an initial control set-up message to the first node, the initial control set-up message comprising at least the following data: the telephone number dialed by the visiting subscriber, the mobile telephone number of the visiting subscriber, and the International Mobile Subscriber Identity of the

visiting subscriber.

21. (Previously Presented) The method according to claim 20, wherein the initial control set-up message is sent from a Mobile Switching Centre of the visited mobile telephony network corresponding to a cell in which the visiting subscriber is located.

22. (Previously Presented) The method according to claim 11, further comprising before sending a short message with a dialing error notification to the visiting subscriber, checking that a predetermined minimum time has elapsed since a previous short message with a dialing error notification was sent to the same visiting subscriber, and if said predetermined minimum time has not elapsed, the short message with a dialing error notification is not sent.

23. (Previously Presented) The method according to claim 11, wherein the error criteria include at least one criterion selected from a group comprising the following criteria:

a number dialed begins with "+" followed by a sign different from a digit C, $1 \leq C \leq 9$;

a number dialed begins with "00" followed by a sign different from a digit C, $1 \leq C \leq 9$;

a number dialed is a 9-digit number beginning with a digit which is not 6, 7, 8 or 9;

a number dialed begins with "+" or "00" followed by a country code followed by an escape code not applicable for international dialing to said country; and

a number dialed is a number with fewer than 9 digits which is not a short code.

24. (Previously Presented) The method according to claim 11, wherein the method is only carried out for visiting subscribers who are not provided with a CAMEL service O-CSI flag.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None